

Please add the following new claims:

22. (New) An electrochemical sensor for determining at least one of a gas component and a gas concentration in a gas mixture, comprising:

an ion-conducting solid electrolyte body;

at least one electrode situated on the ion-conducting solid electrolyte body; and

an electrode lead leading to the at least one electrode, wherein:

the electrode lead includes a material that possesses one of no ionic conductivity and an ionic conductivity that is significantly less than that of a material of the at least one electrode.

23. (New) The electrochemical sensor according to claim 22, wherein:

the at least one electrode and the electrode lead are each formed from a cermet material, and

a ceramic component of the at least one electrode is different than a ceramic component of the electrode lead.

24. (New) The electrochemical sensor according to claim 23, wherein:

the ceramic component of the electrode lead contains 5-10% by volume Al_2O_3 .

25. (New) The electrochemical sensor according to claim 23, wherein:

the ceramic component of the electrode contains 10-60% by volume ZrO_2 stabilized with Y_2O_3 .

26. (New) The electrochemical sensor according to claim 25, wherein:

the ceramic component of the electrode contains 20% by volume ZrO_2 stabilized with Y_2O_3 .

27. (New) The electrochemical sensor according to claim 25, wherein:

the at least one electrode includes an increased porosity as a result of adding a pore-forming material.

28. (New) The electrochemical sensor according to claim 23, wherein:
at least one of a metallic component of the at least one electrode and a metallic component of the electrode lead includes Pt.
29. (New) The electrochemical sensor according to claim 22, further comprising:
a wedge-shaped junction region including an overlap zone and being formed between the electrode lead and the at least one electrode.
30. (New) The electrochemical sensor according to claim 22, further comprising:
a heater; and
a layer plane in which the heater embedded in the ion-conducting solid electrolyte body is located, wherein:
at least one of the electrode lead and the at least one electrode is situated in the layer plane.
31. (New) The electrochemical sensor according to claim 30, wherein:
the heater is made of a material that is the same as the material of the electrode lead.
32. (New) The electrochemical sensor according to claim 22, wherein:
the at least one electrode includes at least one of an internal pump electrode and a reference electrode including corresponding electrode leads of a measuring cell.
33. (New) An electrochemical sensor for determining at least one of a gas component and a gas concentration in a gas mixture, comprising:
an ion-conducting solid electrolyte body;
at least one electrode situated on the ion-conducting solid electrolyte body; and
an electrode lead leading to the at least one electrode, wherein:
the electrode lead includes a material having a low resistance in comparison with a material of the at least one electrode.

34. (New) The electrochemical sensor according to claim 33, wherein:
the at least one electrode and the electrode lead are each formed from a cermet material, and
a ceramic component of the at least one electrode is different than a ceramic component of the electrode lead.

35. (New) The electrochemical sensor according to claim 34, wherein:
the ceramic component of the electrode lead contains 5-10% by volume Al_2O_3 .

AI 36. (New) The electrochemical sensor according to claim 34, wherein:
the ceramic component of the electrode contains 10-60% by volume ZrO_2 stabilized with Y_2O_3 .

37. (New) The electrochemical sensor according to claim 36, wherein:
the ceramic component of the electrode contains 20% by volume ZrO_2 stabilized with Y_2O_3 .

38. (New) The electrochemical sensor according to claim 36, wherein:
the at least one electrode includes an increased porosity as a result of adding a pore-forming material.

39. (New) The electrochemical sensor according to claim 34, wherein:
at least one of a metallic component of the at least one electrode and a metallic component of the electrode lead includes Pt.

40. (New) The electrochemical sensor according to claim 33, further comprising:
a wedge-shaped junction region including an overlap zone and being formed between the electrode lead and the at least one electrode.

41. (New) The electrochemical sensor according to claim 33, further comprising:
a heater; and

a layer plane in which the heater embedded in the ion-conducting solid electrolyte body is located, wherein:

at least one of the electrode lead and the at least one electrode is situated in the layer plane.

42. (New) The electrochemical sensor according to claim 41, wherein:

the heater is made of a material that is the same as the material of the electrode lead.

43. (New) The electrochemical sensor according to claim 33, wherein:

the at least one electrode includes at least one of an internal pump electrode and a reference electrode including corresponding electrode leads of a measuring cell.

44. (New) An electrochemical sensor for determining at least one of a gas component and a gas concentration in a gas mixture, comprising:

an ion-conducting solid electrolyte body;

at least one electrode situated on the ion-conducting solid electrolyte body; and

an electrode lead leading to the at least one electrode, wherein:

the electrode lead includes a material having a low resistance in comparison with a material of the at least one electrode, and

the material possesses one of no ionic conductivity and an ionic conductivity that is significantly less in comparison with the material of the at least one electrode.

Remarks

This Preliminary Amendment cancels original claims 1 to 21 without prejudice, in the underlying PCT Application No. PCT/DE00/04149. The Preliminary Amendment also adds new claims 22-44. The new claims conform the claims to U.S. Patent and Trademark Office rules and do not add new matter to the application.